



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/582,840

06/14/2006

Gerhard Brueckner

4950

5013

21553 7590 11/19/2008
FASSE PATENT ATTORNEYS, P.A.
P.O. BOX 726
HAMPDEN, ME 04444-0726

EXAMINER

WIEHE, NATHANIEL EDWARD

ART UNIT

PAPER NUMBER

3745

MAIL DATE

DELIVERY MODE

11/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,840	Applicant(s) BRUECKNER ET AL.	
	Examiner NATHANIEL WIEHE	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 16-28 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 16-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06142006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 14 June 2006 is noted. The submission is in compliance with the provisions of 37 CFR 1.97 and 1.98. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the stops (claims 24 and 25) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

Art Unit: 3745

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

The specification refers directly to the claims, for instance page 1, lines 4-5 and page 3, lines 8-10.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1,2 and 16-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation turbomachine or turbo-engine, and the claim also recites particularly a gas turbine which is the narrower statement of the range/limitation.

Claims 2 and 16-28 are rejected due to their dependence from claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,16-21,24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Scalzo (3,841,787). Scalzo discloses a gas turbine including a stator and rotor (16) comprising rotor blades (20). The stator includes a housing (14), stationary vanes (24) forming vane rings which boarder with radially outwardly positioned ends (34) on the housing and with radially inwardly positioned ends (32) on the rotor. The turbine includes guide pins (54) for each vane ring segment that pass through the housing (14) in a generally perpendicular manner with and having ends (55) engaging in fork shaped, i.e. slots (60), in the outer cover belt of the vane ring (See Fig. 4). The slots are at least partly open in the radial and axial directions. Scalzo also discloses seal carries (46) arranged between outer cover belts of neighboring guide vane rings (See Fig. 1) which cooperates with the radially outwardly positioned ends of the rotor blades (20). The guide pin (54) also cooperates with the seal carries (46) so that both the seal carries and the stator rings are properly aligned. Further, the pin of Scalzo and corresponding surfaces of the slot are machined flat (55) so as to prevent shiftability of the vane rings.

Claims 1,16,17 and 19-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Lynch et al. (3,365,173), hereinafter "Lynch". Lynch discloses a jet engine, i.e. gas turbine, including a rotor (16) with blades and a stator with a housing (18) and stationary vanes (22) forming guide vane rings (20). The radially outward ends of the guide vane rings border the housing (18), while the radially inward ends (26) border the rotor. Lynch also includes a guide pin (54) extending generally perpendicularly through the housing (18) and engaging with a fork-shaped element, i.e.

Art Unit: 3745

slot (52), in the outer cover belt (42) of the guide vane ring. The slot is partly open in the axial and radial directions. Lynch also discloses seal carries (38) arranged between the radially outwardly positioned ends of neighboring guide vane rings. The seal carries cooperate with the radially outwardly positioned ends of the rotor blades. Lynch's guide vane ring cover belt (42) includes two recesses (52,64) whereby the guide pin engages the first recess (42) and projections (66) of the seal carries engage the second recess (64). The two recesses are positioned next to each other in the circumferential direction. Thereby, the guide pin (54) acts to center both the guide vane rings and the seal carriers. Further, the shape of the slot (42) constitutes an axial stop limiting the shiftability of the guide vane rings.

Allowable Subject Matter

Claims 2 and 26-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In regard to claim 2, the instant invention is deemed to be a non-obvious improvement over the invention of U.S. Pat. No. 3,841,787. The improvement comprises the use of a guide pin extending approximately perpendicularly to the housing and at a slant to the radial direction and the axial directions of the turbo-engine. Such a configuration is not known in the prior art

Art Unit: 3745

In regard to claims 26-28, the instant invention is deemed to be a non-obvious improvement over the invention of the published patent application 2005/0089401. The improvement comprises the use of a mounting device for aligning or adjusting guide pins of a turbo-engine having a plate shaped body and at least two recesses capable of having the guide pins extend into the corresponding recess of the device. Such a mounting device is not known in the prior art.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent issued to Papageorgiou et al. discloses a state of the art guide pin arrangement. The patent issued to Klapproth et al. discloses vane rings and seal carriers having a cooperative mounting arrangement.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHANIEL WIEHE whose telephone number is (571)272-8648. The examiner can normally be reached on Mon.-Thur. and alternate Fri., 7am-4:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571)272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NATHAN WIEHE/
Nathan Wiehe
Examiner
Art Unit 3745

/Edward K. Look/
Supervisory Patent Examiner, Art Unit 3745